OAK LEAF TIER FOLDER 5230

SALES ASSISTANT
SILVICULTURIST
RECREATION STAFF
WILDLIFE STAFF
TM STAFF

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EVALUATION OF AN OAK LEAF TIER, CROESIA SEMIPURPURANA, (KEARFOTT)

ON THE

WHITE SULPHUR RANGER DISTRICT

MONONGAHELA NATIONAL FOREST, WEST VIRGINIA

By

William B. White
Entomologist

Delaware Forest Pest Control Field Office
USDA - Forest Service
PO Box 365, Delaware, Ohio 43015

ABSTRACT

A survey of Croesia semipurpurana on a valuable 4,000 acre oak stand located on the White Sulphur Ranger District showed that defoliation and subsequent egg populations had decreased from 1966. Little defoliation is expected to occur in 1968.

INTRODUCTION

An evaluation was initiated, at the request of Monongahela National Forest personnel in 1965, to assess the status of the oak leaf tier, Croesia semipurpurana (Kearfott), infesting stands on the White Sulphur District. Defoliation by the oak leaf tier was mostly confined to the one district. Although defoliation appeared light to moderate in 1967 (Hanson 67), an egg survey was needed to determine probably 1968 populations.

METHODS

In 1966 a 4,000 acre oak stand on the White Sulphur District was sampled for oak leaf tier eggs and sampling points were rated as to defoliation class. This same stand was sampled again in August, 1967.

At each of the 15 sampling points (Fig.1) two 1-foot branch samples were taken from each of two trees classified as dominant or co-dominant. At the Field Office the eggs on the samples were counted with the aid of a microscope.

RESULTS

When 1966 counts are compared with those of 1967 it can be observed that the average number of eggs per terminal foot of sample branch decreased in 80% of the plots (Table 1). Also of importance is that at 8 of the 10 points with high egg counts in 1966, egg numbers decreased substantially in 1967.

CONCLUSIONS

With the decline of oak leaf tier egg populations, defoliation in 1968 should be insignificant over the 4,000 acre area sampled on the White Sulphur District.

RECOMMENDATIONS

1. Re-survey the same area in 1968 by Forest Pest Control personnel.

Reference

Hanson, J. B. Aerial Detection Survey, Monongahela National Forest 67-9, USDA, Forest Service, Delaware I&D Field Office, Delaware, Ohio

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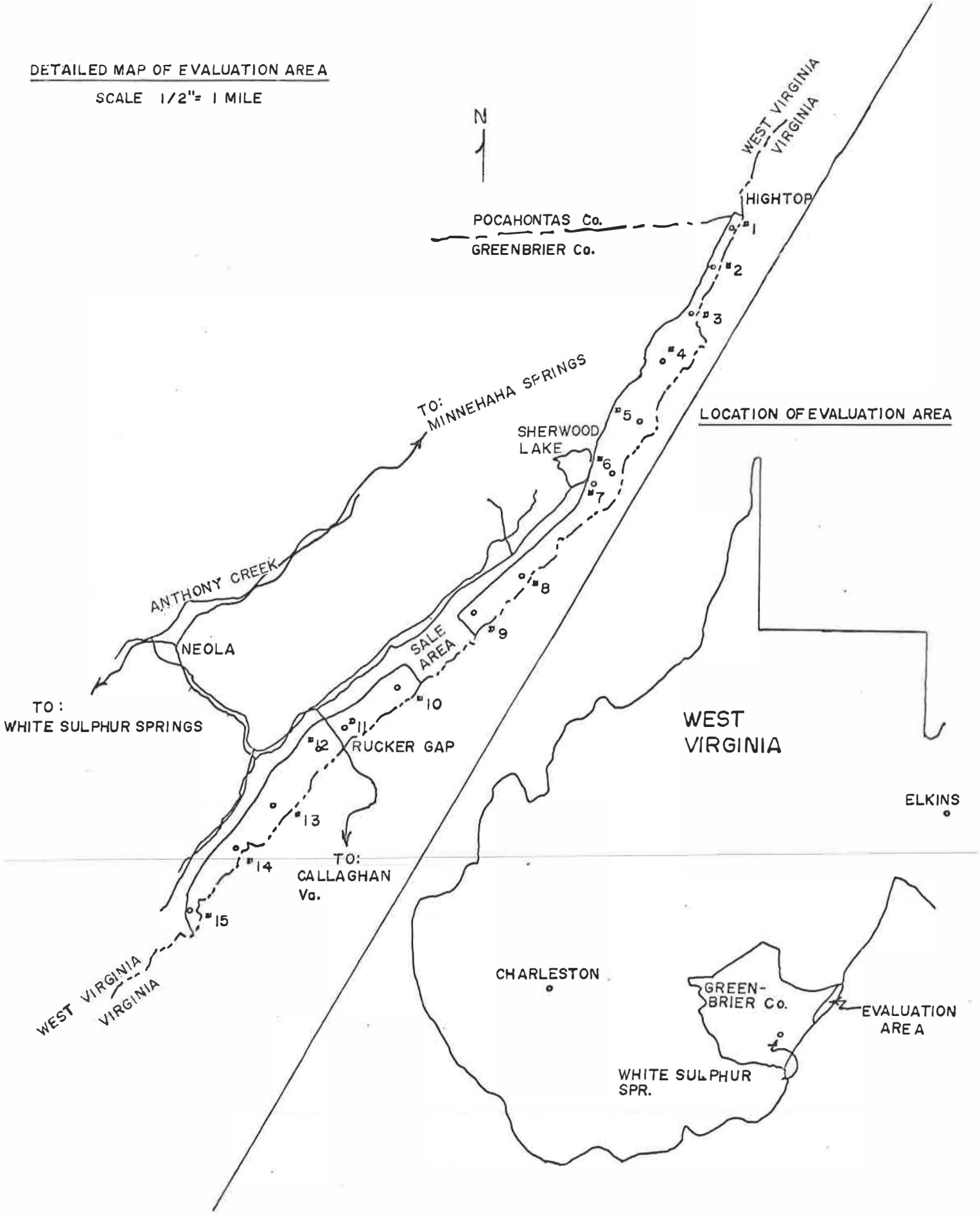
Table 1. Average number of oak leaf tier eggs for the years 1966-67 on the terminal foot of branches at sampling points in the evaluation area.

Sampling Point No.	Avge.No.Eggs 1966	Avge.No.Eggs 1967
1	.25	4.50*
2	2.25	0
3	27.25 **	0
4	2.25	0
5	.25	0.25
6	25.75 **	3.00
7	53.00 **	.75
8	21.50	17.00
9	20.00 **	10.25
10	24.50	21.50
11	26.00 **	5.00
12	57.00 **	3.50
13	37.00 **	.50
14	25.75 **	0.00
15	5.00	6.25

* Increase from 1966

** Decreased substantially in 1967


DETAILED MAP OF EVALUATION AREA
SCALE 1/2"= 1 MILE
N
WEST VIRGINIA
VIRGINIA
HIGHTOP
POCAHONTAS Co.
GREENBRIER Co.
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
TO: MINNEHAHA SPRINGS
SHERWOOD LAKE
ANTHONY CREEK
NEOLA
SALE AREA
TO: WHITE SULPHUR SPRINGS
RUCKER GAP
TO: CALLAGHAN Va.
WEST VIRGINIA
VIRGINIA
LOCATION OF EVALUATION AREA
WEST VIRGINIA
ELKINS
CHARLESTON
GREEN-BRIER Co.
EVALUATION AREA
WHITE SULPHUR SPR.